

REMARKS

Entry of the above amendment and reconsideration of the above-referenced application in view of the above amendment, and of the following remarks, is respectfully requested.

Claims 2, 4-10 are pending in this case. Claims 2 and 4 are amended herein and claims 1 and 3 are cancelled herein.

The Examiner rejected claim 1 under 35 U.S.C. § 103(a) as being unpatentable over Shiba et al, Dunaway et al., or Grzyb et al. Claim 1 is cancelled herein

The Examiner rejected claims 2-10 under 35 U.S.C. § 103(a) as being unpatentable over Ohtsuki in view of Saito et al., and also in view of Urdahl et al, Kar-Roy et al., and Armacost et al.

Applicant respectfully submits that amended claim 2 is patentable over Ohtsuki in view of Saito, Urdahl, Kar-Roy and Armacost as there is no disclosure or suggestion in the references of a topmost metal interconnect level located over a lower metal interconnect level, the topmost metal interconnect level comprising a first and a second metal interconnect line, a bottom electrode located over and in direct physical contact with the first metal interconnect line, a top electrode located over a capacitor dielectric and a metal cap layer located over the top electrode and the topmost metal interconnect level, the metal cap layer electrically connecting said top electrode and said second metal interconnect line. Ohtsuki teaches a bottom electrode 10 in direct contact with an insulator 9 instead of a first metal interconnect line. Urdahl is applied to teach a TaN capacitor electrode. Kay-Roy is applied to teach hafnium oxide and silicon nitride for a capacitor dielectric. Armacost is applied to teach copper interconnects. Saito is applied to teach connecting the plate line of a memory cell to ground. The combined references fail to disclose or suggest an interconnect level having two metal interconnect lines

wherein a bottom electrode of a capacitor is in direct physical contact with one of the metal lines and a top electrode is electrically connected through a metal cap to the second of the metal lines. Accordingly, Applicant respectfully submits that claim 2 and the claims dependent thereon are patentable over the references.

Applicant respectfully submits that claim 9 and the claim dependent thereon are similarly patentable over the references.

In light of the above, Applicant respectfully requests withdrawal of the Examiner's rejections and allowance of claims 2, and 4-10. If the Examiner has any questions or other correspondence regarding this application, Applicant requests that the Examiner contact Applicant's attorney at the below listed telephone number and address.

Respectfully submitted,

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